
HENDERSON COUNTY

(Henderson County Water Service Area Map)

- Estimated 1999 population of 44,300--90% on public water
- Estimated 2020 population of 44,200--91% on public water
- 440 miles of water lines, with plans for 55 additional miles
- Estimated funding needs for public water 2000-2005: \$31,754,000
- Estimated funding needs for public water 2006-2020: \$7,905,000

Henderson County had an estimated population of 44,347 (18,284 households) in 1999 with a projected population of 44,200 (20,000 households) in 2020. Public water is provided to about 90 percent of the county's residents. In areas of the county not served by public water, about 90 percent of the households rely on private domestic wells and 10 percent on other sources. About 120 customers will be added to public water service through new line extensions in 2000-2020.

Estimated Costs - Proposed Projects, 2000-2005

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	In \$1000	in \$1000	in \$1000	in \$1000	in \$1000
HENDERSON								-
Henderson County Water District	55	120	1,250	1,250			1,515	4,015
Henderson.			474	6,730		18,207	2,328	27,739
TOTAL	55	120	1,724	7,980		18,207	3,843	31,754

Estimated Costs - Proposed Projects, 2006-2020

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	in \$1000	in \$1000	in \$1000	in \$1000	in \$1000
HENDERSON								-
Henderson.				1,550		6,355		7,905
TOTAL	-	-	-	1,550		6,355	-	7,905

PUBLIC WATER SYSTEMS

The residents of Henderson County are presently served by 5 public or semi-public water systems: 1 municipal system, Henderson Municipal Sewer and Water Utility and its South Plant; 1 water district, the Henderson County Water District; and 3 non-community

WATER SERVICE AREAS

HENDERSON COUNTY

Kentucky

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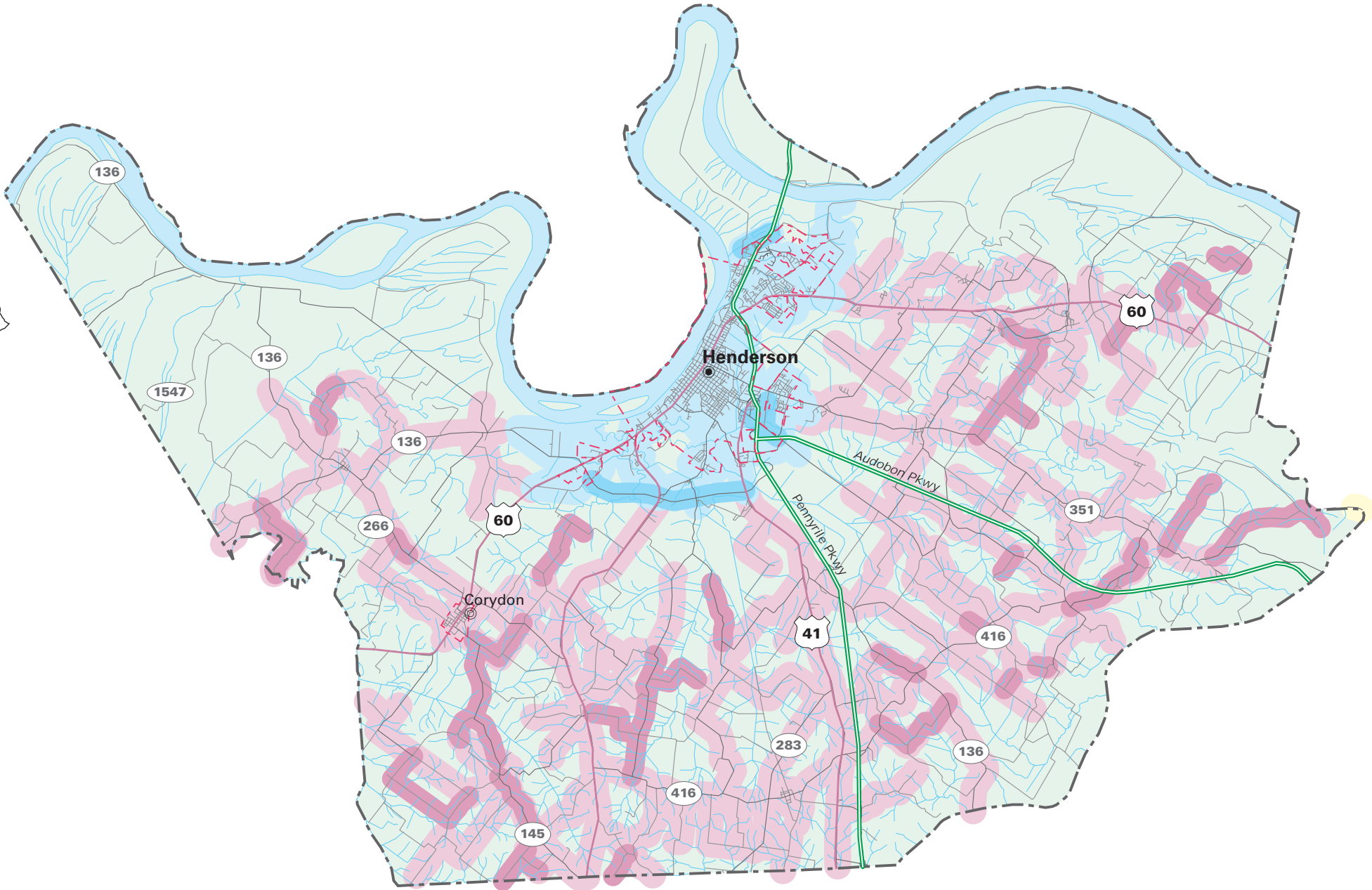
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WATER SERVICE STATUS BY OWNER

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		WEST DAVIESS COUNTY WATER DISTRICT
		HENDERSON MUNICIPAL WATER AND SEWER UTILITIES
		HENDERSON COUNTY WATER DISTRICT

systems. Henderson Municipal Water is the only water supplier in the county as other systems purchase water from them.

HENDERSON COUNTY WATER DISTRICT

PWSID: 0510189
System Type: COMMUNITY
Owner Type: WATER DISTRICT
Surface Source:
Purchase Source:
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD): 0.00
Percent Daily Average Production: 0.00
Total Tank Storage Capacity (gallons): 1,650,000.00
Total Service Connections: 5,334.00
Number of Employees: 9.00
Treatment Operator Class: 3D
Distribution Operator Class:
Customer Rate for 1,000 Gallons: 4.15
O/M costs 1997: 1,018,794.00
O/M costs per Service Connection: 193.39
Net Revenue 1997: 107,987.00
Total Water Produced 1997 (gallons): 0.00
Water Sold 1997 (gallons): 363,839,000.00
Unaccounted-for Water 1997 (%): 19.17

Henderson County Water District purchases its water supply from the City of Henderson via the Ohio River. Two booster-pumping stations move the water to the district. The district currently serves 5,334 customers (5,286 residential, 44 commercial, 4 schools) in Henderson County. Additionally, the district serves 174 customers in Webster County. Water is purchased at an average rate of 1.35 million gallons daily. The total available capacity is 3.15 million gallons daily. It is purchased at a price of \$1.0773 per 1000 gallons. Water storage is provided by 2 standpipe tanks and 6 elevated tanks, for a total storage capacity of 1,650,000 gallons. Henderson County Water District currently operates under 9 full time employees.

The need for improvements in Henderson County Water District results from water loss and increasing water safety standards. Henderson County's present growth rate may exceed current storage capacity and ability to supply quality service. If the currently planned projects are completed, Henderson County Water District expecting to be able to comply with all regulations concerning the water system and improve service well into the future.

HENDERSON MUNICIPAL WATER AND SEWER UTILITIES

PWSID:..... 0510188
System Type:..... COMMUNITY
Owner Type:..... MUNICIPAL
Surface Source:..... OHIO RIVER
Purchase Source:
Well Source:
Sells Water to:
Treatment Plant Capacity (MGD):..... 12.00
Percent Daily Average Production: 63.00
Total Tank Storage Capacity (gallons):..... 7,580,000.00
Total Service Connections: 10,452.00
Number of Employees:..... 21.00
Treatment Operator Class:..... 3D
Distribution Operator Class: 4A
Customer Rate for 1,000 Gallons:..... 2.24
O/M costs 1997:..... Not available
O/M costs per Service Connection: Not available
Net Revenue 1997:..... Not available
Total Water Produced 1997 (gallons):..... Not available
Water Sold 1997 (gallons):..... Not available
Unaccounted-for Water 1997 (%): Not available

The City of Henderson draws its water from the Ohio River. This district currently serves 10,452 customers (9,259 residential, 1,021 commercial, 58 industrial, 83 institutional, and 31 free). Also, the city serves Sebree in Webster County, Beech Grove in McLean County, and Tyson Chicken plant in McLean County. The average daily withdraw of water from the Ohio River is 7,630,000 gallons. A maximum daily withdraw of 12 million gallons is permitted. The system operates two water treatment plants with capacities of 12 million gallons daily. 3 elevated tanks, 2 ground storage tanks, and 1 standpipe tank provide water storage with total storage capacity of 7,580,000 gallons. The water system bases its rates on cubic feet of water. For a person that uses 400 to 600 cubic feet of water (2,992 to 7,481 gallons), their bill would be \$11.76. Henderson City Municipal Water currently operates under 21 full time employees.

The need for improvement for this district is in the form of water storage and quality. Proposed projects will greatly improve water quality to Henderson County residents. Water loss will also be addressed with the system upon completion of future projects. Water storage is an immediate need within this system due to the fact that the storage capacity has just over one day's use when compared to the average daily consumption.

HENDERSON WATER AND SEWER UTILITY, SOUTH PLANT

Henderson Water and Sewer Utility, South Plant is located in Henderson County. The system serves a population of 500 and has 3 service connections. The system has treatment capacity of 4,000,000 gallons per day. The water source is the Green River. The system had gross revenue of operating and management cost of \$2,438,944 and net revenue of \$738,126 for the period 07/01/96 - 06/30/97.

OTHER SYSTEMS

ALCAN INGOT, SEBREE ALUMINIUM PLANT

Alcan Ingot, Sebree Aluminium Plant is located in Henderson County. The system serves a population of 600 and has 1 service connection. The private, non-transient, non-community system has treatment capacity of 1,400,000 gallons per day. The water source is surface water from Green River.

TROCADERO PLAZA

Trocadero Plaza is located in Henderson County. The system serves a population of 25 and has 1 service connection. The private, transient, non-community system has treatment capacity of 3,840 gallons per day. The water source is wells.

ELLIS PARK RACE COURSE

Ellis Park Race Course is located in Henderson County. The system serves a population of 1,500 and has 2 service connections. The private, non-transient, non-community system has treatment capacity of 360,000 gallons per day. The water source is wells.

PRIVATE DOMESTIC SYSTEMS

About 4,400 people in Henderson County rely on private domestic water supplies: 90 percent use wells, the remainder relying on other sources.

The alluvium along the Ohio River is the best source of ground water in the county. In northern Henderson County nearly all drilled wells from depths of less than 150 feet in the alluvium of the Ohio River valley are adequate for domestic use with most wells yielding more than 50 gallons per minute (gpm) with some wells yielding as much as 1,000 gpm. In the southern and central half of Henderson County most wells which penetrate sandstone's

from depths of less than 300 feet are adequate for a domestic supply. In the highlands of the eastern part of the county and in western Henderson County in the area around Smith Mills, only a few wells yield enough water for a domestic supply.

Generally, ground water is hard to very hard and iron and salt may be present in objectionable amounts. Often ground water becomes saltier with depth.
